

REMARKS/ARGUMENTS

1. The Examiner rejected claims 88, 95, 104, and 105 under 35 U.S.C. § 102(b) as being anticipated by the Pacific Dunlop of Australia brochure on Exide Switch Technology (hereinafter "Exide Switch Brochure"). Claims 89-92, 94, 96, and 97 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure. Claim 93 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Geibl et al. (U.S. Patent No. 6,143,438). Claims 99 and 100 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Hiroyuki et al. (Japanese Patent No. JP405068306A). Claims 99-102 were rejected under as being unpatentable over the Exide Switch Brochure in view of prior art disclosed by Applicants in the specification, and further in view of Cook et al. (U.S. Patent No. 6,734,651). Claims 98 and 103 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Krieger et al. (U.S. Patent No. 6,377,029). Claim 98 was objected to under 35 U.S.C. § 132(a) for introducing new matter into the specification. Lastly, the specification was objected to for failing to provide proper antecedent basis for the claim terms "plurality of independent operating functions" and "operating parameters." Reconsideration of this application is respectfully requested in view of the amendments and/or remarks provided herein.

Objection to the Specification

2. The specification was objected to for failing to provide proper antecedent basis for the claim terms "plurality of independent operating functions" and "operating parameters." Applicants respectfully disagree. As an initial matter, Applicants do not use the phrase "plurality of independent operating *functions*" (emphasis added) in any pending claim. Applicants do however use the phrase "plurality of independent operating *positions*" (emphasis added) in pending claim 88 and, therefore, assume for the remainder of this Section that the Examiner is referring to such phrase in the objection to the specification. If Applicants' assumption is incorrect, clarification is requested.

As explained below, Applicants' specification provides support for both of the phrases at issue (i.e., "plurality of independent operating positions" and "operating parameters"); however,

in order to move prosecution forward, Applicants have nevertheless amended claim 88 to delete the adjective “independent” from the phrase “plurality of independent operating positions” and have amended claims 99 and 100 to recite “operating conditions” instead of “operating parameters.” In addition, Applicants have amended paragraph [0032] of the specification to include the term “plurality of” as an equivalent to the originally cited “at least two.” Support for Applicants’ amendment of the term “plurality of independent operating positions” to “plurality of operating positions” can be found in, among other places, paragraph [0032] of Applicants’ specification. Support for Applicants’ amendment of the term “operating parameters” to “operating conditions” can be found in paragraph [0096] of Applicants’ specification.

Applicants’ originally filed specification supports both phrases at issue. For example, with respect to the phrase “plurality of independent operation positions” in claim 1, paragraph [0032] of Applicants’ originally filed specification states that the at least one switching device has “at least two operating positions.” In other words, paragraph [0032] discloses that the at least one switching device has “a plurality of” operating positions. In addition, paragraph [0089] states that “the invention permits the fully charged battery to be used independently to start the vehicle or device.” Since the switching device’s operating positions are what determine which battery is being used, such positions are clearly “independent.” Moreover, Applicants FIGs. 3B, 4B, and 5B, together with their associated descriptions, clearly disclose the independent nature of the switching device’s operating positions. As a result, Applicants’ originally filed specification fully supports Applicants use of the phrase “plurality of independent operation positions” in claim 88. Nevertheless, in order to move prosecution forward, Applicants have amended claim 88 to remove the adjective “independent” from the phrase “plurality of independent operation positions.”

Applicants’ originally filed specification also fully supports Applicants’ use of the phrase “operating parameters” in claims 99 and 100. For example, in paragraph [0096] of Applicants’ specification, Applicants state that:

The *controller 700 monitors* and detects various *operating conditions* of the batteries through an at least one sensor. The at least one sensor can include, but is not limited to, any of an at least one main battery, auxiliary battery, and switch sensor or any additional sensors. The *controller 700 can* continuously

monitor for example, but not limited to, any of the **following parameters** with any of the at least one main, auxiliary, or switch sensors: the auxiliary battery voltage, the main battery voltage, the auxiliary battery cold cranking amperage, the main battery cold cranking amperage, temperature, vibration, current, the switch state, the switch position, and the condition of various flags and various timers within the system.

(Emphasis added.) Based on the context of paragraph [0096] as emphasized in the above excerpt, the disclosed controller clearly monitors various **operating** conditions, or equivalently **operating** parameters, of the main and standby batteries. Examples of such parameters or conditions are then recited in the paragraph. One of ordinary skill in the art would clearly understand the scope of Applicants' use of the term "operating parameters" in claims 99 and 100 given the recitations of paragraph [0096]. As a result, ample antecedent basis exists in Applicants' originally filed specification to support use of the term "operating parameters" in claims 99 and 100. Nevertheless, in order to move prosecution forward and as discussed above, Applicants have amended claims 99 and 100 to recite "operating conditions" instead of "operating parameters." The term "operating conditions" is also fully supported in paragraph [0096] of Applicants' originally filed specification.

Based on the foregoing, Applicants respectfully request that the Examiner withdraw the objections to use of the phrase "plurality of independent operation positions" in claim 88 and to use of the phrase "operating parameters" in claims 99 and 100.

Objection to the Claims

3. Claim 98 was objected to under 35 U.S.C. § 132(a) for introducing new matter into the specification. In particular, the Examiner asserts that there is no support in the specification for the switching device being operable in a "third operating position." Applicants respectfully disagree.

As clearly stated in paragraph [0080] of the application:

Finally, a **tertiary** or storage **operating** mode or **position** 370 would be provided wherein the switching device 300 would disconnect both the main battery positive output 110 and the auxiliary battery positive output 210 from the common positive terminal 310 when not in use.

(Emphasis added.) The term “tertiary” means “third” as defined in various dictionaries (see attached set of definitions from www.dictionary.com). Thus, Applicants’ originally filed specification clearly supports Applicants’ use of a “third operating position” in claim 98. Thus, as stated by Applicants’ in their RCE submission dated November 23, 2005, no new matter was added by the amendments to the specification and claims presented in such submission.

The Examiner appears to acknowledge, in Paragraph 10 on page 9 of the Office Action, that Applicants’ specification discloses a “third operating position.” However, the Examiner asserts that, since the third position shuts the battery system “OFF”, the position of the switching device is “non-operating.” Applicants disagree. While the third “operating” position of the switching device may indeed disconnect both the main battery and the standby battery from the electrical system, such position is still an “operating” position from the perspective of the *switching device*. In other words, the third *operating* position of the switching device renders the batteries non-operating. The term “third operating position” as recited in claim 98 relates to the switching device, *not* the batteries. Therefore, Applicants submit that the term “third operating position” as used claim 98 is not only supported by Applicants’ specification, but is also used properly in the context of operation of the claimed switching device.

Based on the foregoing, Applicants respectfully request that the Examiner withdraw the objection to use of the term “third operating position” in claim 98.

Rejection under 35 U.S.C. § 102(b)

4. Claims 88, 95, 104, and 105 were rejected under 35 U.S.C. § 102(b) as being anticipated by the Exide Switch Brochure. In particular, the Examiner asserts that the Exide Switch Brochure discloses all the limitations of Applicants’ pending independent claims, including the limitation that “the main battery and the at least one standby battery never supply electrical energy to the electrical system simultaneously.” Applicants respectfully disagree and enclose herewith a Second Declaration of Mr. William Weiss under 37 C.F.R. § 1.132 in support of Applicants’ arguments, which declaration is incorporated herein by reference.

A. Exide Switch Brochure Does Not Disclose All Limitations of Applicants' Independent Claims.

The Exide Switch Brochure appears to be an advertisement for the Exide Switch battery, which Applicants have discovered was actually marketed and sold by GNB International, a U.S. subsidiary of the Australian company Pacific Dunlop. The Exide Switch Brochure itself is undated, but was evidently received by the U.S. Patent and Trademark Office on July 3, 1989 based on the date of the date stamp noted on the copy of the Exide Switch Brochure supplied by the Examiner. Since there are no markings on the Exide Switch Brochure evidencing its date of publication, if any, the Exide Switch Brochure may not qualify as a printed publication. Applicants address the printed publication issue below. For the remainder of this argument, Applicants assume, without prejudice and for the sake of argument only, that the Exide Switch Brochure is a proper printed publication.

As disclosed in the Exide Switch Brochure, the Exide Switch battery has a main battery unit and a reserve battery unit integrated into a single device using so-called Pulsar Technology. The two units are linked by a switching mechanism that controls the discharge of the reserve unit. The main unit is separated from the reserve unit by a one-way diode that serves to allow power to flow from the reserve unit when the switch is pushed to the "Reserve" position. However, because the Exide Switch Brochure is merely a promotional tool, it is rather unclear as to the technical operation of the battery when the switch is pushed to the "Reserve" position. For example, while the Exide Switch Brochure states that "when the main battery goes flat, all you have to do to get instant power is push a switch to the live reserve unit," the Exide Switch Brochure fails to disclose how the main and reserve units interact when the switch is so pushed. In other words, the Exide Switch Brochure fails to disclose whether the two units are placed in parallel, in series, or are completely isolated when the switch is moved from "Main" to "Reserve."

To understand the actual operation of the Exide Switch battery, Applicants performed a variety of Internet searches in an attempt to find additional information on the Switch battery and Pulsar Technology. As a result of Applicants' search efforts, Applicants discovered two articles relating to the Switch battery, one published on September 25, 1989 (entitled "Neon colors jazz

up APAA show; ‘spare’ batteries spark interest despite high prices – Automotive Parts and Accessories Association”) (hereinafter the “AAPA Show Article”), a little over two months after the date that the U.S. Patent and Trademark Office obtained a copy of the Exide Switch Brochure, and the other published on January 29, 1990 (entitled “‘Spare’ battery prices ease at discounters – automobile batteries”), only a few months after the AAPA Show Article. Applicants also discovered a laboratory testing report issued by EG and G Idaho, Inc. under a contract with the Department of Energy (entitled “Laboratory testing of GNB switch 12 volt SLI (starting, lighting and ignition) battery”). All of these new references shed additional light on the actual inter-workings of the Exide Switch battery (or “Switch” battery for short) advertised in the Exide Switch Brochure. All three references, as well as information relating to early technological developments in Australia from the 1800s through the 1970s and several additional battery patents are being submitted concurrently herewith in the form of a Supplemental Information Disclosure Statement with statement under 37 C.F.R. § 1.97(e).

As detailed in the APAA Show Article, the Switch battery features a spare battery housed within the case of the main battery. If the main battery is dead, the operator can open the hood and switch on the spare battery. The spare battery is “added” to the main battery when the switch is flipped to gain cold cranking amperage. In particular, the GNB Switch battery was specified at 640 cold cranking amps (CCAs), including 460 CCAs in the main battery and the balance of the 180 CCAs in the “spare” cells. As is well known in the art, the amount of current supplied by two current sources placed *in parallel* is the sum of the currents supplied by the individual current sources. (See Second Declaration of William Weiss under 37 C.F.R. § 1.132, ¶ 11.) Therefore, based on the APAA Show Article’s recitation of the CCA specification for the Switch battery, the APAA Show Article inherently discloses that the Switch battery is a dual battery system in which the main battery is placed in parallel with the spare battery when the switch is moved from “Main” to “Reserve.” (See *id.* ¶ 12.) Such disclosure or suggestion is verified by the laboratory testing report issued by EG and G Idaho, Inc. (“DOE Report”). (See *id.* ¶ 18.)

The DOE Report was issued based on laboratory testing of the GNB Switch 12 Volt SLI battery (see title of DOE Report). Based on an analysis of the DOE Report and the Exide Switch Brochure performed by Applicants’ expert, Mr. Weiss, the GNB Switch battery discussed in the

DOE Report is identical or substantially similar in all material respects to the Switch battery that is the subject of the Exide Switch Brochure. (*See id.* ¶ 17.) As a result, the content of the DOE Report is highly relevant to understanding the operation of the Switch battery disclosed in the Exide Switch Brochure.

The DOE Report clearly states that the tested GNB Switch battery “consists of two batteries in one package which can be connected *in parallel* by a switch for higher cranking energy or reserve capacity.” (*See* DOE Report, p. 1, Background) (emphasis added). As a result, the Switch battery disclosed in the Exide Switch Brochure is a battery system that utilizes a switch to connect a spare or reserve battery *in parallel* with a main battery when additional power is needed to start a car or otherwise. (*See* Second Weiss Decl. ¶ 18.)

Therefore, while the Exide Switch Brochure discloses an electrical system having a main battery, a standby battery, a one-way charging circuit, and a switching device operable in a plurality of operating positions, the Exide Switch Brochure fails to disclose or suggest a switching device that permits use of the standby battery independently of the main battery, such that the main battery and the standby battery never supply electrical energy to the electrical system simultaneously as required by all of Applicants’ independent claims. (*See id.* ¶¶ 20-21.) Instead, the Exide Switch Brochure simply discloses a battery system that delivers electrical energy to an electrical system through a main battery either alone or in combination (i.e., in parallel) with a standby battery. (*See id.* ¶ 18.) As a result, the Exide Switch Brochure is merely cumulative to the prior art already cited by the Examiner, including U.S. Pat. No. 6,229,279 issued Dierker et al., which prior art has been addressed repeatedly and at length by Applicants in prior Office Action responses, such prior responses and supporting declarations (including the Declaration of Mr. William Weiss dated November 23, 2005) being incorporated herein by this reference.

Our understanding of the operation of the Switch battery disclosed in the Exide Switch Brochure is consistent with the understanding of others in the relevant art. In particular, the Exide Switch Brochure was cited as prior art in U.S. Patent No. 5,162,164 issued to Dougherty et al. (“the ‘164 Patent”) and U.S. Patent 5,002,840 issued to Klebenow et al. (“the ‘840 Patent”), as indicated on the front pages of those patents. At column 1, line 63, through column 2, line 18, of the ‘164 Patent, Dougherty et al. discuss the operation of the battery system disclosed in the

Exide Switch Brochure and clearly state that the “two batteries are electrically configured *in parallel*, with a one-way diode disposed therebetween to prevent the reserve unit from discharging during periods of non-use.” (See Second Weiss Decl. ¶ 19) (emphasis added). Thus, the Exide Switch Brochure fails to disclose or suggest a dual battery system in which the main battery and the standby battery never supply electrical energy to the electrical system simultaneously as required by all of Applicants’ independent claims. (See *id.* ¶¶ 20-21.)

Therefore, based on the foregoing, Applicants submit that the recitations of claims 88, 95, 104, and 105 are not disclosed or suggested by the Exide Switch Brochure and respectfully request that claims 88, 95, 104, and 105 be passed to allowance.

B. Exide Switch Brochure Is Not a Printed Publication

As an alternative basis for allowing the independent claims of the present application, the Exide Switch Brochure does not qualify as a printed publication with which to reject Applicants’ claimed invention because there is no evidence that the Exide Switch Brochure was actually ever published or issued, as required by 35 U.S.C. § 102(b). See 37 C.F.R. § 1.104(d)(1); M.P.E.P. §§ 706.02(a) and 901.06. To qualify as a printed publication, a document must be circulated to some extent. See *Total Containment Inc. v. Environ Products, Inc.*, 921 F. Supp. 1355, 1375 (E.D. Pa. 1995), *aff’d* 106 F.3d 427 (Fed. Cir. 1997) (holding undated brochure not printed publication) (hereinafter “TCI”). In *TCI*, the Court analyzed several documents that allegedly anticipated the invention at issue. One allegedly anticipatory document was referred to as the Hofit brochure (hereinafter the “Hofit Brochure”). The undated brochure was purported to have been distributed on a non-confidential basis by Hofit Plastic Products more than one year prior to the earliest date of which the patent at issue would have been entitled. There was evidence that only one association ever received the brochure. However, the association did not date stamp its files and therefore the date of receipt was not established. In addition, the association would not release the brochures without approval from Hofit Plastic Products, placing the public accessibility of the brochures in doubt.

In the present case, the Examiner has provided no evidence that anyone besides the U.S. Patent and Trademark Office (hereinafter “PTO”) actually received the Exide Switch Brochure. The Examiner states that the Exide Switch Brochure anticipates claims 88, 95, 104 and 105, but

never provides the issue or publication date of the reference. The Exide Switch Brochure contains a date stamp indicating the date it was received by the PTO, probably in connection with Information Disclosure Statements (IDS) filed during prosecution of either U.S. Pat. No. 5,002,840 to Klebenow et al. or U.S. Pat. No. 5,162,164 to Dougherty et al. On Form PTO-892 in the present application, the Examiner lists the PTO receipt date, *not* the publication date. However, there is no requirement that information submitted in an IDS must be prior art. *See* M.P.E.P. § 609. In addition, a file wrapper is not deemed a printed publication merely due to the issuance of the patent associated therewith. *See Camp Bros. & Co. v. Portable Wagon Dump & Elevator Co.*, 251 F. 603 (7th Cir. 1918) (“The resultant inconvenience of holding such contents of a file wrapper to be publication- indeed, the practical impossibility of making in each case the search necessary to learn whether or not there lies buried in some one file wrapper of the infinite number in the Patent Office, some paper disclosure of an invention, of itself, apart from its inherent want of the elements of a public disclosure- induces the conclusion that it may not be regarded as such a publication.”). Therefore, mere receipt of a document by the U.S. Patent and Trademark Office does not constitute publication or issuance of the document, and the Examiner has not shown that the Exide Switch Brochure was published more than one year prior to Applicants’ filing date. Without a proper determination of the issue or publication date of the Exide Switch Brochure, the Examiner has not properly applied 35 U.S.C. § 102(b) in accordance with M.P.E.P. § 706.02(a)(I). Therefore, Applicants’ submit that the Examiner has not sustained the Office’s burden to show that the Exide Switch Brochure is a printed publication sufficient to maintain a rejection of the pending claims under 35 U.S.C. § 102(b), and respectfully request that Applicants claims 88, 95, 104, and 105 be passed to allowance.

Rejections under 35 U.S.C. § 103(a)

5. Claims 89-92, 94, 96, and 97 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure. Claims 89-92, 94, 96, and 97 are dependent upon claim 88, which claim has been shown allowable above. Therefore, at least because claims 89-92, 94, 96, and 97 each introduce additional subject matter that, when considered in the context of the recitations of claim 88, constitutes patentable subject matter, Applicants respectfully submit that the recitations of claims 89-92, 94, 96, and 97 are not disclosed or suggested by the

Exide Switch Brochure. Therefore, Applicants respectfully submit that claims 89-92, 94, 96, and 97 are in proper condition for allowance.

6. Claim 93 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Geibl et al. (hereinafter "Geibl"). Claim 93 is dependent upon claim 88 (through intervening claim 91), which claim has been shown allowable above. Therefore, at least because claim 93 introduces additional subject matter that, when considered in the context of the recitations of base and intervening claims 88 and 91, constitutes patentable subject matter, Applicants respectfully submit that the recitations of claim 93 are not disclosed or suggested by the Exide Switch Brochure and/or Geibl, whether taken alone or in combination. Therefore, Applicants respectfully submit that claim 93 is in proper condition for allowance.

7. Claims 99 and 100 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Hiroyuki et al. (hereinafter "Hiroyuki"). Claims 99 and 100 are dependent upon claim 88, which claim has been shown allowable above. Therefore, at least because claims 99 and 100 each introduce additional subject matter that, when considered in the context of the recitations of claim 88, constitutes patentable subject matter, Applicants respectfully submit that the recitations of claims 99 and 100 are not disclosed or suggested by the Exide Switch Brochure and/or Hiroyuki, whether taken alone or in combination. Therefore, Applicants respectfully submit that claims 99 and 100 are in proper condition for allowance.

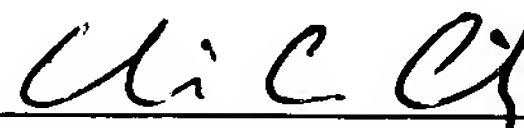
8. Claims 99-102 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of prior art disclosed by Applicants in the specification, and further in view of Cook et al. (hereinafter "Cook"). Claims 99-102 are dependent upon claim 88, which claim has been shown allowable above. Therefore, at least because claims 99-102 each introduce additional subject matter that, when considered in the context of the recitations of claim 88, constitutes patentable subject matter, Applicants respectfully submit that the recitations of claims 99-102 are not disclosed or suggested by the Exide Switch Brochure, Cook and/or the prior art disclosed by Applicants in the specification, whether taken alone or in combination.

Therefore, Applicants respectfully submit that claims 99-102 are in proper condition for allowance.

9. Claims 98 and 103 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Exide Switch Brochure in view of Krieger et al. (hereinafter "Krieger"). Claims 98 and 103 are dependent upon claim 88, which claim has been shown allowable above. Therefore, at least because claims 98 and 103 each introduce additional subject matter that, when considered in the context of the recitations of claim 88, constitutes patentable subject matter, Applicants respectfully submit that the recitations of claims 98 and 103 are not disclosed or suggested by the Exide Switch Brochure and/or Krieger, whether taken alone or in combination. Therefore, Applicants respectfully submit that claims 98 and 103 are in proper condition for allowance.

10. The Examiner is invited to contact the undersigned by telephone, facsimile or email if the Examiner believes that such a communication would advance the prosecution of the instant application. Please charge any necessary fees associated herewith, including extension of time fees (if applicable and not paid by separate check), to the undersigned's Deposit Account No. 50-1111.

Respectfully submitted,

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In re application serial no.: 10/604,703

**Title: MULTIPLE BATTERY SYSTEM AND AUXILIARY BATTERY ATTACHMENT
SYSTEM**

File No.: 013476-05187

CERTIFICATE OF EXPRESS MAILING

I HEREBY CERTIFY that the following correspondence: AMENDMENT AND RESPONSE (18 pages); 1 DICTIONARY REFERENCE (3 pages); SECOND DECLARATION OF WILLIAM J. WEISS UNDER 37 C.F.R. § 1.132 (5 pages); INFORMATION DISCLOSURE STATEMENT (2 pages); PTO -1449 AND 4 CITED PUBLICATIONS (34 pages); RETURN POSTCARD FOR CONFIRMATION OF RECEIPT is being deposited with the United States Postal Service as Express Mail No. EL 650910703US in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, this the 28th day of APRIL, 2006.

Chriselide Mendez, Legal Assistant

April 28, 2006

Date